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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,721	09/29/2003	Yuji Imaizumi	045070-5036	9270

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EXAMINER

BEISNER, WILLIAM H

ART UNIT PAPER NUMBER

1744

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,721

Applicant(s)

IMAZUMI ET AL.

Examiner

William H. Beisner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 21-23 and 25-39 is/are pending in the application.
- 4a) Of the above claim(s) 1-15 and 21-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group III, Claims 16-20, in the reply filed on 5/18/2005 is acknowledged.
2. Claims 1-15 and 21-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 5/18/2005.

Specification

3. The abstract of the disclosure is objected to because of the use of legal phraseology. Correction is required. See MPEP § 608.01(b).
4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. **The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.** The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Note the abstract still includes the claim language "means".

Claim Rejections - 35 USC § 102

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 25-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Yao et al.(US 2003/0100059).

The reference of Yao et al. discloses an intracellular measuring apparatus for measuring intracellular reactions wherein the apparatus includes a specifying means in which the intensity of the first light emitted from the specimen in accordance with the presence of a stated protein is detected to specify a noted region of the specimen based on the first light and a selection means in which the intensity of second light emitted from the specimen in accordance with intracellular reactions induced by the protein is detected, of the detected intensity of the second light, the intensity of the second light emitted from the noted region. Specifically Example 1 discloses the use of a real-time fluorescence imaging device that is capable of distinguishing a cell with the “stated protein” from cells that do not have the “stated protein” (See Figure 2c), that is specifying a first light (GFP emitted light) associated with transfected cells and identifying the transfected cells (a noted region). The imaging device also determines the intensity of a second light emitted by the transfected cells as evidenced by Figure 2c which plots the intensity of second light of transfected cells in addition of second light relative to non-transfected cells.

With respect to claim 25, the system disclosed by the reference of Yao et al. is structurally capable of measuring interacellular reactions in which a plurality of cells stand adherent to one another. The same holds true for distinguishing between a region wherein the protein is “in a higher proportion than a stated standard”. In not, the device of Yao et al. would not be capable of distinguishing between transfected cells and non-transfected cells. Note page 23 of the instant specification defines the “specifying means” structure as a fluorescent microscope that can detect fluorescent protein (GFP) and an image processing unit. The reference of Yao et al. discloses both of these structures. The instant specification defines the “selecting means” as a fluorescent microscope that can detect membrane-potential-sensitive fluorescent dye and an image processing unit. The reference of Yao et al. discloses both of these structures as well. As a result, the reference of Yao et al. structurally meets the instant claim language since the structures are the same and the device would be capable of being used in the manner intended by preamble of the claim.

The claims holds true for independent claim 30.

With respect to claims 26 and 31, the system inherently includes a chemical-substance introduction means for introducing substances which target the “stated protein”. If not, the norepinephrine and forskolin required of Example 1 could not have been added to the cell culture.

With respect to claims 27 and 33, the second light intensity is sampled over constant time as evidenced by the plot generated in Figure 2C.

With respect to claims 28 and 34, the system is structurally capable of detecting the intensity of a first light emitted by a fluorescent protein expressed together with the “stated

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protein” and a second light emitted from a fluorescent probe as evidenced by the GFP and Fura-2 of Example 1.

With respect to claims 29, 36 and 39, the real-time fluorescence imaging device of Example 1 inherently includes the claimed detection means. If not, the plot of Figure 2C would not be capable of being generated. Specifically, the points when reagents were added relative to time.

With respect to claims 32, 35, 37 and 38, the device is structurally capable of distinguishing GFP positive cells relative the whole cell population and limiting the second light intensity to the GFP positive cells as evidenced by the GFP positive plot in Figure 2C.

Response to Arguments

7. With respect to the rejection of claim 19 under 35 USC 112, second paragraph, this rejection has been rendered moot in view of the cancellation of claim 19.

8. With respect to the rejection of claims 16-20 and 24-39 under 35 USC 102 over the reference of Yao et al., Applicants argue (See pages 20-21 of the response filed 11/22/05) that the rejection is improper because the “selection means” and “specifying means” of the instant claims differ from the disclosure of the reference of Yao et al. Specifically Applicants argue that the method in which the system of Yao et al. is employed different from the instant claims because the instant claims require specifying a “region” and/or “cell colonies” which is not disclosed by the reference of Yao et al.

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9. In response, Applicants' comments are not found to be persuasive because the Examiner is of the position that the device disclosed by the reference of Yao et al. is structurally the same as that of the instant claims. They both include optical excitation and detection systems for exciting and detecting the same wavelengths of light and employ image capture and processing devices. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In the instant application, the reference of Yao et al. is structurally capable of performing the intended use recited in the instant claims.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 571-272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


William H. Beisner
Primary Examiner
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WHB